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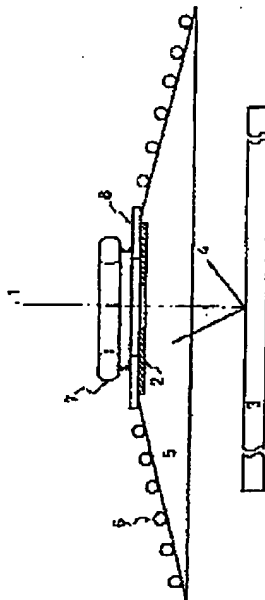
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TITLE : SHIELDING DEVICE FOR STOPPING
LASER REFLECTED BEAM



ABSTRACT : PURPOSE: To prevent the equipment damages by the reflected beam from the material to be machined by equipping the aperture for change having the small hole for laser beam and being coated for one side reflection on the center of the shielding plate of a laser reflected beam and the gas spraying mechanism to cool it.

CONSTITUTION: The laser beam 1 condensed by a condensing mirror or lens is irradiated on the material 3 to be machined with passing through the small hole of the center of the aperture 2 for change of which lower face is coated for reflection. One part of the irradiated beam is reflected on the surface of the material to be machined and a reflected light 4 is caused. When the reflected light 4 is abutted to the other part excluding the aperture 2 of the shielding plate 5, the energy of the reflected light is absorbed to the shielding plate 5. Due to the shielding plate 5 having a cooling water circuit 6 on its back face however the temp. rise to the extent of damaging is not caused. When the reflected light is hit to the aperture 2, the majority of the reflected light is reflected and irradiated again to the material 3 to be machined due to the lower face side opposing to the material 3 to be machined being coated for reflection. The aperture 2 absorbs some energies of the reflected light and is cooled by a gas spraying mechanism 7.

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